

IN THE CLAIMS

36. (Previously Presented) A system for supporting oversubscription, comprising:

a telecommunications switch operable to assign a plurality of telephone numbers to a line, to receive an incoming call for one of the telephone numbers, and to communicate the incoming call associated with the telephone number using the line; and

a voice gateway coupled to the telecommunications switch using the line, the voice gateway operable to receive the incoming call, to detect a unique distinctive ring assigned to the telephone number associated with the incoming call, and to communicate the incoming call according to the distinctive ring.

37. (Previously Presented) The system of Claim 36, wherein the voice gateway communicates the incoming call by processing the incoming call into digital packets according to the distinctive ring and communicating the digital packets to a customer premises interface for further communication to a customer premises.

38. (Previously Presented) The system of Claim 37, wherein the voice gateway processes the incoming call into the digital packets according to the distinctive ring by identifying an address associated with the distinctive ring and assigning the address to the digital packets.

39. (Previously Presented) The system of Claim 38, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

40. (Previously Presented) The system of Claim 37, wherein the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

41. (Previously Presented) The system of Claim 36, wherein the voice gateway is further operable to communicate the incoming call to a selected one of a plurality of output lines according to the distinctive ring.

42. (Previously Presented) The system of Claim 36, wherein the telecommunications switch is further operable to assign at least four telephone numbers to the line.

43. (Previously Presented) The system of Claim 36, wherein the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines coupled between the telecommunications switch and the voice gateway, and to communicate the outgoing call to the telecommunications switch using the available line.

44. (Previously Presented) The system of Claim 43, wherein the voice gateway communicates the outgoing call by receiving digital packets, processing the digital packets into a voice signal, and communicating the voice signal to the telecommunications switch using the available line.

45. (Previously Presented) The system of Claim 43, wherein the plurality of lines is a hunt group.

46. (Previously Presented) The system of Claim 36, wherein:

the telecommunications switch is a Class 5 switch; and  
the voice gateway is further operable to couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

47. (Previously Presented) The system of Claim 36, wherein the line is an unbundled analog line.

48. (Previously Presented) A voice gateway for supporting oversubscription of a line coupled to a telecommunications switch, the voice gateway operable to receive a first incoming call with a first distinctive ring from the line and to communicate the first incoming call to a first destination according to the first distinctive ring, the voice gateway further operable to receive a second incoming call with a second distinctive ring from the line and to communicate the second incoming call to a second destination according to the second distinctive ring.

49. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway communicates the first incoming call by processing the first incoming call into digital packets according to the first distinctive ring and communicating the digital packets to a customer premises.

50. (Previously Presented) The voice gateway of Claim 49, wherein the voice gateway processes the first incoming call into the digital packets according to the first distinctive ring by identifying an address associated with the first distinctive ring and assigning the address to the digital packets.

51. (Previously Presented) The voice gateway of Claim 50, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

52. (Previously Presented) The voice gateway of Claim 49, wherein the voice gateway communicates the digital packets to the customer premises using a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

53. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to communicate the first incoming call to a selected one of a plurality of output lines according to the first distinctive ring.

54. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway receives the second incoming call after terminating the first incoming call.

55. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to support oversubscription of at least 4:1.

56. (Previously Presented) The voice gateway of Claim 48, wherein the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines coupled to the telecommunications switch, and to communicate the outgoing call to the telecommunications switch using the available line.

57. (Previously Presented) The voice gateway of Claim 56, wherein the voice gateway communicates the outgoing call by receiving digital packets, processing the digital packets into a voice signal, and communicating the voice signal to the telecommunications switch using the available line.

58. (Previously Presented) The voice gateway of Claim 56, wherein the plurality of lines is a hunt group.

59. (Previously Presented) The voice gateway of Claim 48, wherein:

the telecommunications switch is a Class 5 switch; and  
the voice gateway is further operable to couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

60. (Previously Presented) The voice gateway of Claim 48, wherein the lines are unbundled analog lines.

61. (Previously Presented) A method for supporting oversubscription of a line coupled to a telecommunications switch, comprising:

receiving a first incoming call with a first distinctive ring from the line coupled to the telecommunication switch;

communicating the first incoming call to a first destination according to the first distinctive ring;

receiving a second incoming call with a second distinctive ring from the line; and

communicating the second incoming call to a second destination according to the second distinctive ring.

62. (Previously Presented) The method of Claim 61, wherein communicating the first incoming call to the first destination according to the first distinctive ring further comprises:

processing the first incoming call into digital packets according to the first distinctive ring; and

communicating the digital packets to a customer premises.

63. (Previously Presented) The method of Claim 62, wherein processing the first incoming call into the digital packets according to the first distinctive ring further comprises:

identifying an address associated with the first distinctive ring; and

assigning the address to the digital packets.

64. (Previously Presented) The method of Claim 63, wherein the address is an Internet Protocol (IP), Asynchronous Transfer Mode (ATM), or Frame Relay address.

65. (Previously Presented) The method of Claim 62, wherein communicating the digital packets to the customer premises further comprises communicating the digital packets to a customer premises interface for further communications to the customer premises.

66. (Previously Presented) The method of Claim 65, wherein the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

67. (Previously Presented) The method of Claim 61, wherein communicating the first incoming call to the first destination according to the first distinctive ring further comprises:

selecting one of a plurality of output lines according to the first distinctive ring; and

communicating the first incoming call using the selected output line.

68. (Previously Presented) The method of Claim 61, further comprising terminating the first incoming call before receiving the second incoming call.

69. (Previously Presented) The method of Claim 61, further comprising providing at least 4:1 oversubscription of the line.

70. (Previously Presented) The method of Claim 61, further comprising:

receiving an outgoing call from a customer premises;

identifying an available line from a plurality of lines coupled to the telecommunications switch; and

communicating the outgoing call to the telecommunications switch using the available line.

71. (Previously Presented) The method of Claim 70, wherein communicating the outgoing call to the telecommunications switch further comprises:

receiving digital packets from a customer premises interface;

processing the digital packets into a voice signal; and

communicating the voice signal to the telecommunications switch using the available line.

72. (Previously Presented) The method of Claim 70, wherein the plurality of lines is a hunt group.

73. (Previously Presented) The method of Claim 61, wherein:

the telecommunications switch is a Class 5 switch; and

the lines couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

74. (Previously Presented) The method of Claim 61, wherein the lines are unbundled analog lines.

75. (Previously Presented) A voice gateway for supporting oversubscription of a plurality of unbundled lines coupled to a telecommunications switch, the voice gateway operable to receive digital packets from a customer premises, to process the digital packets into a voice signal, to identify an available unbundled line from the plurality of unbundled lines, and to communicate the voice signal to the telecommunications switch using the available unbundled line.

76. (Previously Presented) The voice gateway of Claim 75, wherein the voice gateway receives the digital packets from the customer premises using a Digital Subscriber Line Access Multiplexer (DSLAM) operable to receive digital packets over a twisted pair in a local loop using a digital subscriber line.

77. (Previously Presented) The voice gateway of Claim 75, wherein the plurality of unbundled lines is a hunt group.

78. (Previously Presented) The voice gateway of Claim 75, wherein the unbundled lines are Integrated Services Digital Network Basic Rate Interface (ISDN BRI) lines, each ISDN BRI line operable to simultaneously communicate two voice signals between the telecommunications switch and the voice gateway.

79. (Previously Presented) The voice gateway of Claim 75, wherein:

the telecommunications switch is a Class 5 switch; and

the unbundled lines couple to the Class 5 switch without using an overlay Class 5 switch or digital loop carrier architecture.

80. (Previously Presented) A method for supporting oversubscription of a plurality of unbundled lines coupled to a telecommunications switch, further comprising:

receiving digital packets from a customer premises;  
processing the digital packets into a voice signal;  
identifying an available unbundled line from the plurality of unbundled lines; and

communicating the voice signal to the telecommunications switch using the available unbundled line.

81. (Previously Presented) The method of Claim 80, wherein receiving the digital packets from the customer premises further comprises using a Digital Subscriber Line Access Multiplexer (DSLAM) to receive digital packets over a twisted pair in a local loop using a digital subscriber line.

82. (Previously Presented) The method of Claim 80, wherein the plurality of unbundled lines is a hunt group.

83. (Previously Presented) The method of Claim 80, wherein the unbundled lines are Integrated Services Digital Network Basic Rate Interface (ISDN BRI) lines, each ISDN BRI line operable to simultaneously communicate two voice signals between the telecommunications switch and the voice gateway.

84. (Previously Presented) The method of Claim 80,  
wherein:

the telecommunications switch is a Class 5 switch; and  
the unbundled lines couple to the Class 5 switch without  
using an overlay Class 5 switch or digital loop carrier  
architecture.